

-12-

We Claim:

1. A diagnostic kit for detecting pulmonary & extra pulmonary tuberculosis comprising a test card "TB Screen" coated with a hydrophobic material, antigen suspension, positive and Negative control.

2. A kit as claimed in claim 1, wherein said antigen suspension is liposome antigen and the said test card is preferably a plastic slides.

3. A kit as claimed in claim 1, wherein said negative control is prepared from the blood of normal young Rabbit.

4. A kit as claimed in claim 1, wherein said positive control is prepared from 4 to 6 month old rabbit which were immunized with the mycobacterium antigens and bled periodically.

5. A method of detecting tuberculosis using the kit comprising positive control, negative control & test sample each in circular motion on the test card coated with hydrophobic material adding said antigen suspension to each of the positive, negative & test sample to interpret the results, clumping of specific antigen and antibody as dark blue agglutination was observed in positive control and the test sample which contain the active tuberculosis infection.

6. The method as claimed in claim 5, wherein the lipid antigens for positive control is prepared comprising the steps of :

growing Mycobacterium tuberculosis H 37R_v(ATCC-27294) strain on Sautons media,

harvesting the cell in the media by centrifugation at 4° to 10°C,

subjecting the said cells to the step of sonication,

extracting the antigens from the said cells

adding chloroform and methanol mixture (2:1) to the said antigens with stirring at room temperature;

subjecting the mixture to the step of filtration,

-13-

the suspension thus obtained is transferred into a separating funnel and kept for overnight till two distinct layer were separated, upper aqueous phase was removed and the lower organic phase retained after filtration, organic phase was dried by evaporating the solvent to obtain the lipids and subjecting the said lipid
5 to the further step of purification.

7. A method as claimed in claim 1, wherein said antigens suspension is prepared comprising the steps of:

adding phophotidylcholine, cholesterol, lipid antigens and dye in a flask and evaporating the solvent in a vacuum evaporator,

10 dissolving the dried contents thus obtained in absolute alcohol and kept at 4° to 10°C for 1 to 2 hrs to produce the antigen suspension,

adding the said antigen solution to sucrose solution with continuous stirring and the said suspension was kept at 2-8°C overnight;

15 subjecting the said suspension to the step of centrifugation, supernatant was discarded,

suspending the pellet into the buffer and string the same at 4° to 10°C.

8. The method as claimed in claim 5, wherein the said lipid (antigen) is further purified using column chromatography.

9. The method as claimed in claim 7, wherein the said buffer comprises
20 $\text{NaH}_2\text{PO}_4 \cdot 2\text{H}_2\text{O}$, KH_2PO_4 , EDTA, Choline Chloride and Thiomersol.

10. The method as claimed in claim 7, wherein the said dye is sudan Black in chloroform.